

Congaree Swamp National Monument, Accuracy Assessment Metadata

Identification_Information:

Citation:

Citation_Information:

Originator:

L. L. Gaddy, Ph. D.

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2333 Terrace Way

Columbia, South Carolina 29205

and

Kerry Brooks, Ph. D.

Department of Planning

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Publication_Date: 200005

Title: Congaree Swamp National Monument Accuracy Assessment of the Vegetation Mapping Products

Geospatial_Data_Presentation_Form: database and report

Series_Information:

Series_Name: USGS-NPS Vegetation Mapping Program

Issue_Identification: Congaree Swamp National Monument

Publication_Information:

Publication_Place: Denver, CO

Publisher: USGS, Biological Resources Division, Center for Biological Informatics

Other_Citation_Details: Created under contract to the USGS-BRD-CBI.

Online_Linkage: http://biology.usgs.gov/npsveg/cosw/index.html#accuracy_assessment_info

Description:

Abstract:

An assessment of the accuracy of a provisional vegetation map of Congaree Swamp National Monument.

Purpose:

Part of a USGS-National Park Service effort to produce vegetation maps of all the nation's national parks.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 199910

Ending_Date: 200005

Currentness_Reference: Dates of field sampling

Status:

Progress: Complete

Maintenance_and_Update_Frequency: None Planned

Spatial_Domain:

Description_of_Geographic_Extent:

Congaree Swamp National Monument is located approximately 15 miles southeast of Columbia, the state capitol of South Carolina. Old Bluff Highway (old Highway 48) lies just north of the Monument boundary. The eastern boundary is located just northwest of the confluence of the Congaree and Wateree Rivers. The Monument extends west to where Cedar Creek and Myers Creek join.

Bounding_Coordinates:

West_Bounding_Coordinate: -80.85

East_Bounding_Coordinate: -80.67083

North_Bounding_Coordinate: 33.84167

South_Bounding_Coordinate: 33.75

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Keywords:

Theme:

Theme_Keyword_Thesaurus: None
Theme_Keyword: National Park Service
Theme_Keyword: U.S. Geological Service
Theme_Keyword: The Nature Conservancy
Theme_Keyword: Aerial Information Systems
Theme_Keyword: Center for Biological Informatics
Theme_Keyword: land cover
Theme_Keyword: vegetation
Theme_Keyword: community
Theme_Keyword: association
Theme_Keyword: accuracy assessment

Place:

Place_Keyword_Thesaurus: None
Place_Keyword: Congaree Swamp National Monument
Place_Keyword: South Carolina
Place_Keyword: USA

Taxonomy:

Keywords/Taxon:

Taxonomic_Keyword_Thesaurus: None
Taxonomic_Keywords: Plant Communities
Taxonomic_Keywords: National Vegetation Classification System

Taxonomic_System:

Classification_System/Authority:

Classification_System_Citation:

Citation_Information:

Originator:

United States Department of the Interior National Biological Survey and National Park Service

Publication_Date: 19941101

Title:

Standardized National Vegetation Classification System

Edition: Version 1

Geospatial_Data_Presentation_Form: Document - Classification System

Series_Information:

Series_Name: NBS/NPS Vegetation Mapping Program

Issue_Identification: Final Draft

Publication_Information:

Publication_Place: Redlands, California

Publisher: ESRI

Other_Citation_Details: Prepared by the Nature Conservancy

Classification_System_Modifications:

The criteria differs primarily in that the height and density variables were not mapped at Congaree Swamp. Instead, two additional variables were addressed: pre-hurricane Hugo community types and areas of pine that have been logged since the time of the 1976 aerial photography.

Identification_Reference:

Citation_Information:

Originator:

United States Department of the Interior National Biological Survey and National Park Service

Publication_Date: 19941101

Title:

Standardized National Vegetation Classification System

Edition: Version 1

Geospatial_Data_Presentation_Form: Classification System

Series_Information:

Series_Name: NBS/NPS Vegetation Mapping Program

USGS-NPS Vegetation Mapping Program
Congaree Swamp National Monument

Issue_Identification: Final Draft

Publication_Information:

Publication_Place: Redlands, California

Publisher: ESRI

Other_Citation_Details: Prepared by the Nature Conservancy

Taxonomic_Procedures:

See "Photo Interpretation Report, BRD/NPS Vegetation and Inventory and Mapping Program,
Congaree Swamp National Monument," October 12, 1998 <http://biology.usgs.gov/npsveg/cosw/pi_rpt.pdf>

General_Taxonomic_Coverage:

Vegetation Alliances of the National Vegetation Classification System (October 1995)

Taxonomic_Classification:

Taxon_Rank_Name: Kingdom

Taxon_Rank_Value: Plantae

Applicable_Common_Name: s: Plants

Access_Constraints: None

Use_Constraints:

Any person using the information presented here should fully understand the data collection and compilation procedures, as described in these metadata, before beginning analysis. The burden for determining fitness for use lies entirely with the user. For purposes of publication or dissemination, citations should be given to the U.S. Geological Survey and the National Park Service

Point_of_Contact:

Contact_Information:

Contact_Person_Primary:

Contact_Person: USGS-NPS Vegetation Mapping Program Coordinator

Contact_Organization:

U.S. Geological Survey, Biological Resources Division, Center for Informatics

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Address_Type: Physical Address

Address: U.S. Geological Survey, Biological Resources Division

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Contact_Facsimile_Telephone: (303) 202-4219 (org)

Contact_Facsimile_Telephone: (303) 202-4229

Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov

Browse_Graphic:

Browse_Graphic_File_Name: <http://biology.usgs.gov/npsveg/cosw/images/coswplots.jpg>

Browse_Graphic_File_Description: 517 Kbyte, locations of accuracy assessment sites; low resolution for web browsing.

Browse_Graphic_File_Type: JPEG

Security_Information:

Security_Classification_System: None

Security_Classification: None

USGS-NPS Vegetation Mapping Program Congaree Swamp National Monument

Security_Handling_Description: None

Native_Data_Set_Environment: Microsoft Access mdb

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

For accuracy assessment, a field visit was made to 585 points between October, 1999 and May 2000. Points were located through the use of a PLGR GPS unit and false-color infrared photographs. At each point dominant vegetation types were recorded and a field key was used to determine the plant community / cover type present. Over 85 percent of the points were reached on foot, the remainder were located by boat. When all of the points were visited, two tables were generated comparing the field interpretation of the polygons with that of the photointerpreters. The final accuracy assessment was performed through a statistical analysis of the data using contingency tables and statistical tests. Most of the problems noted were related to map class definition and terminology and did not involve map accuracy per se. Through the use of contingency tables and other statistics, the overall accuracy of the provisional map was calculated as 87 percent. The statistics from only one class, the "Celtis laevigata - Liquidambar styraciflua - Quercus laurifolia / Carpinus caroliniana / Arundinaria gigantea / Carex lupulina Forest-Sweetgum component" failed to meet the NPS 80 percent accuracy standards. Data indicates that this class may be undermapped, being more widespread than was actually mapped. See "Summary Report on the Results of an Accuracy Assessment of the National Park Service's Provisional Vegetation Map of Congaree Swamp National Monument" at <http://biology.usgs.gov/npsveg/cosw/aa_rpt.pdf> for further details.

Logical_Consistency_Report:

All polygon features are checked for topology using the ARC/INFO software.

Completeness_Report:

A field visit was made to 585 points between October, 1999 and May 2000. Points were located through the use of a PLGR GPS unit and false-color infrared photographs. At each point dominant vegetation types were recorded and a field key was used to determine the plant community / cover type present. Over 85 percent of the points were reached on foot, the remainder were located by boat.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Accuracy assessment points were located through the use of a PLGR GPS unit and false-color infrared photographs. It is estimated that the locations were accurate to within plus or minus 10 meters.

Lineage:

Methodology:

Methodology_Type: Field

Methodology_Description:

Following National Park Service Accuracy Assessment guidelines for Protocols A-D, Dr. Brooks generated a stratified random sample of 596 points through the Monument. Following National Park Service Protocol E, Dr. Brooks also generated a non-random sample of 32 points which were termed "unique signatures" by AIS personnel (SEE LITTLESAM for Protocol E data). Maps of both sets of points, UTM coordinates, and other pertinent data were given to Dr. L. L. Gaddy, who was in charge of the field portion of the accuracy assessment. (Dr. Gaddy did not know which class the photointerpreters had assigned to a given polygon when he conducted his field work; he could, however, see the polygon boundaries on the map.)

As USGS-NPS protocol dictated, Gaddy visited 585 points from October, 1999 through May 2000. Points were located through the use of a PLGR GPS unit and false-color infrared photographs. At each point dominant vegetation types were recorded and a field key was used to determine the plant community/cover type present. Over 85 percent of the points were reached on foot, the remainder were located by boat.

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Congaree Swamp National Monument

When all of the points had been visited, Dr. Gaddy complete the two tables comparing his field interpretation of the polygon with that of the photointerpreters. Dr. Brooks then performed the final accuracy assessment through a statistical analysis of the data using contingency tables and statistical tests (see CROSS 1, CROSS 2, AND CROSS 3).

Methodology_Citation:

Citation_Information:

Originator:

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Publication_Date: 200005

Title:

Summary Report on the Results of an Accuracy Assessment
of the National Park Service's Provisional Vegetation Map
of Congaree Swamp National Monument

Geospatial_Data_Presentation_Form: Report

Publication_Information:

Publication_Place: Denver, CO
Publisher: USGS, BRD, Center for Biological Informatics
Other_Citation_Details: Created under contract to the USGS-BRD-CBI.
Online_Linkage: <http://biology.usgs.gov/npsveg/cosw/aa_rpt.pdf>

Process_Step:

Process_Description: See Methodology Description above

Process_Date: 1999-2000

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Vector

Spatial_Reference_Information:

Horizontal_Coordinate_System_Definition:

Planar:

Grid_Coordinate_System:

Grid_Coordinate_System_Name: Universal Transverse Mercator

Universal_Transverse_Mercator:

UTM_Zone_Number: 17

Transverse_Mercator:

Longitude_of_Central_Meridian: -81

Latitude_of_Projection_Origin: 0

False_Easting: 500000

False_Northing: 0

Scale_Factor_at_Central_Meridian: 0.9996

Planar_Coordinate_Information:

Planar_Coordinate_Encoding_Method: coordinate pair

Coordinate_Representation:

Abscissa_Resolution: 1

Ordinate_Resolution: 1

Planar_Distance_Units: Meters

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Geodetic_Model:

Horizontal_Datum_Name: North American Datum of 1983
Ellipsoid_Name: Geodetic Reference System 80
Semi-major_Axis: 6378137
Denominator_of_Flattening_Ratio: 298.257

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:

At each point, dominant vegetation types were recorded and a field key was used to determine the plant community / cover type present.

Entity_and_Attribute_Detail_Citation:

Grossman, D. Et al. 1994. National Park Service Vegetation Mapping Project, Standardized National Vegetation Classification System 209 pp.

Distribution_Information:

Distributor:

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Contact_Person: USGS-NPS Vegetation Mapping Program Coordinator

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Address: Biological Resources Division

Address: Center for Informatics

Address: PO Box 25046, DFC, MS302

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State_or_Province: Colorado

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Country: USA

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Contact_Facsimile_Telephone: 303-202-4229

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Resource_Description: COSW Veg Map

Distribution_Liability:

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Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name: HTML

Digital_Transfer_Option:

Online_Option:

Computer_Contact_Information:

Network_Address:

USGS-NPS Vegetation Mapping Program
Congaree Swamp National Monument

Network_Resource_Name: http://biology.usgs.gov/npsveg/cosw/index.html#accuracy_assessment_info
Fees: None

Metadata_Reference_Information:

Metadata_Date: 200110

Metadata_Review_Date: 20060830

Metadata_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization: USGS-NPS Vegetation Mapping Program Coordinator

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Contact_Facsimile_Telephone: (303) 202-4219

Contact_Electronic_Mail_Address: gs-b-npsveg@usgs.gov

Metadata_Standard_Name: FGDC-STD-001.1-1999 Content Standard for Digital Geospatial Metadata, 1998 Part 1:
Biological Data Profile, 1999

Metadata_Standard_Version: FGDC-STD-001-1998

Metadata_Extensions:

Online_Linkage: <http://biology.usgs.gov/fgdc.bio/bionwext.txt>

Profile_Name: Biological Data Profile FGDC-STD-001.1-1999